SLOVENSKI STANDARD
SIST EN IEC 60810:2018

01-april-2018

Nadomešča:
SIST EN 60810:2015
SIST EN 60810:2015/A1:2017

Sijalke, viri svetlobe in okrovi svetlečih diod (LED) za cestna vozila - Tehnične zahteve (IEC 60810:2017)

Lamps, light sources and led packages for road vehicles - Performance requirements (IEC 60810:2017)

Ta slovenski standard je istoveten z: **EN IEC 60810:2018**

ICS:

29.140.20	Žarnice z žarilno nitko	Incandescent lamps
43.040.20	Naprave za osvetlitev, signalizacijo in opozarjanje	Lighting, signalling and warning devices

SIST EN IEC 60810:2018 **en**

EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN IEC 60810

February 2018

ICS 29.140.99 Supersedes EN 60810:2015

English Version

Lamps, light sources and led packages for road vehicles - Performance requirements (IEC 60810:2017)

Lampes, sources lumineuses et led encapsulées pour véhicules routiers - Exigences de performances (IEC 60810:2017)

Lampen für Straßenfahrzeuge - Anforderungen an die Arbeitsweise (IEC 60810:2017)

This European Standard was approved by CENELEC on 2017-10-30. CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration.

Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN-CENELEC Management Centre or to any CENELEC member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CENELEC member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

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European Committee for Electrotechnical Standardization
Comité Européen de Normalisation Electrotechnique
Europäisches Komitee für Elektrotechnische Normung

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

Ref. No. EN IEC 60810:2018 E

European foreword

The text of document 34A/2021/FDIS, future edition 5 of IEC 60810, prepared by SC 34A "Lamps" of IEC/TC 34 "Lamps and related equipment" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN IEC 60810:2018.

The following dates are fixed:

- latest date by which the document has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2018-08-09
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2021-02-09

This document supersedes EN 60810:2015.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CENELEC shall not be held responsible for identifying any or all such patent rights.

Endorsement notice

The text of the International Standard IEC 60810:2017 was approved by CENELEC as a European Standard without any modification.

In the official version, for Bibliography, the following notes have to be added for the standards indicated:

IEC 60068-2-20	NOTE	Harmonized as EN 60068-2-20
IEC 60068-2-47	NOTE	Harmonized as EN 60068-2-47
IEC 60682:1980	NOTE	Harmonized as EN 60682:1993
IEC 60809:1995	NOTE	Harmonized as EN 60809:1996
IEC 60809:1995/A5:2012	NOTE	Harmonized as EN 60809:1996/A5:2012

Annex ZA
(normative)

Normative references to international publications with their corresponding European publications

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

NOTE 1 When an International Publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

NOTE 2 Up-to-date information on the latest versions of the European Standards listed in this annex is available here: www.cenelec.eu.

Publication	Year	Title	EN/HD	Year
IEC 60050-845	-	International Electrotechnical Vocabulary- (IEV) -- Chapter 845: Lighting		-
IEC 60061-1	-	Lamp caps and holders together with gauges for the control of interchangeability and safety -- Part 1: Lamp caps	EN 60061-1	-
IEC 60068-2-14	-	Environmental testing -- Part 2-14: Tests - Test N: Change of temperature	EN 60068-2-14	-
IEC 60068-2-43	-	Environmental testing -- Part 2-43: Tests - Test Kd: Hydrogen sulphide test for contacts and connections	EN 60068-2-43	-
IEC 60068-2-58	-	Environmental testing - Part 2-58: Tests - Test Td: Test methods for solderability, resistance to dissolution of metallization and to soldering heat of surface mounting devices (SMD)	EN 60068-2-58	-
IEC 60068-2-60	-	Environmental testing -- Part 2-60: Tests - Test Ke: Flowing mixed gas corrosion test	EN 60068-2-60	-
IEC 60809	2014	Lamps for road vehicles - Dimensional, electrical and luminous requirements	EN 60809	2015
ISO 7637-2	2011	Road vehicles_- Electrical disturbances- from conduction and coupling_- Part_2: Electrical transient conduction along supply lines only		-
ISO 10605	-	Road vehicles_- Test methods for electrical- disturbances from electrostatic discharge		-
CISPR 25	-	Vehicles, boats and internal combustion engines - Radio disturbance characteristics - Limits and methods of measurement for the protection of on-board receivers	EN 55025	-
United Nations Vehicle Regulations	1958	Agreement concerning the adoption of uniform technical prescriptions for wheeled vehicles, equipment and parts which can be fitted and/or be used on wheeled vehicles and the conditions for reciprocal recognition of approvals granted on the basis of these prescriptions		
JESD22-A101C	-	Steady-state temperature humidity bias life-test		-
JESD22-A104E	-	Temperature cycling	-	-

JESD22-A105C	-	Power and temperature cycling	-	-
JESD22-A106B	-	Thermal shock	-	-
JESD22-A108D	-	Temperature, bias, and operating life	-	-
JESD22-A113F	-	Preconditioning of plastic surface mount-devices prior to reliability testing		-
JESD22-A115C	-	Electrostatic discharge (ESD) sensitivity-testing machine model (MM)		-
JESD22-B101B	-	External visual	-	-
JESD22-B103B	-	Vibration, variable frequency	-	-
JESD22-B106D	-	Resistance to solder shock for through--hole mounted devices		-
JESD22-B110B	-	Mechanical shock - Component and-subassembly		-
JESD22-B116	1998	Wire Bond Shear Test Method	-	-
JESD51-50:2012-04-		Overview of methodologies for the thermal-measurement of single- and multi-chip, single- and multi-pn-junction light-emitting diodes (LEDs)		-
JESD51-51:2012-04-		Implementation of the electrical test-method for the measurement of real thermal resistance and impedance of light-emitting diodes with exposed cooling surface		-
JESD51-52:2012-04-		Guidelines for combining CIE 127-2007-total flux measurements with thermal measurements of LEDs with exposed cooling surface		-
JESD51-53:2012-05-		Terms, definitions and units glossary for-LED thermal testing		-
ANSI/IPC/ECA J--STD-002C		Solderability tests for component leads,-terminations, lugs, terminals and wires		-
ANSI/ESDA/JEDEC JS-001	2012	Joint JEDEC/ESDA standard for-electrostatic discharge sensitivity testing human body model (HBM) – component level		-
MIL-STD-883E	2015	Visual Inspection Criteria	-	-
ZVEI	2016	Guideline for Customer Notifications of-Product and/or Process Changes (PCN) of Electronic Components specified for Automotive Applications		-

IEC 60810

Edition 5.0 2017-09

INTERNATIONAL STANDARD

NORME INTERNATIONALE

colour inside

Lamps, light sources and led packages for road vehicles – Performance requirements

Lampes, sources lumineuses et led encapsulées pour véhicules routiers – Exigences de performances

INTERNATIONAL ELECTROTECHNICAL COMMISSION

COMMISSION ELECTROTECHNIQUE INTERNATIONALE

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

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LAMPS, LIGHT SOURCES AND LED PACKAGES FOR ROAD VEHICLES – PERFORMANCE REQUIREMENTS

FOREWORD

1) The International Electrotechnical Commission (IEC) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of IEC is to promote international co-operation on all questions concerning standardization in the electrical and electronic fields. To this end and in addition to other activities, IEC publishes International Standards, Technical Specifications, Technical Reports, Publicly Available Specifications (PAS) and Guides (hereafter referred to as "IEC Publication(s)"). Their preparation is entrusted to technical committees; any IEC National Committee interested in the subject dealt with may participate in this preparatory work. International, governmental and non-governmental organizations liaising with the IEC also participate in this preparation. IEC collaborates closely with the International Organization for Standardization (ISO) in accordance with conditions determined by agreement between the two organizations.
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International Standard IEC 60810 has been prepared by subcommittee 34A: Lamps, of IEC technical committee 34: Lamps and related equipment.

This fifth edition cancels and replaces the fourth edition published in 2014 and Amendment 1:2017. This edition constitutes a technical revision.

This edition includes the following significant technical changes with respect to the previous edition:

a) update and clarification of the title and scope;
b) introduction of new LED light sources;
c) introduction of requirements for LED light sources;
d) introduction of guidelines on LED package robustness validation for LED packages.

The text of this International Standard is based on the following documents:

FDIS	Report on voting
34A/2021/FDIS	34A/2033/RVD

Full information on the voting for the approval of this International Standard can be found in the report on voting indicated in the above table.

This document has been drafted in accordance with the ISO/IEC Directives, Part 2.

The committee has decided that the contents of this document will remain unchanged until the stability date indicated on the IEC website under "http://webstore.iec.ch" in the data related to the specific document. At this date, the document will be

- reconfirmed,
- withdrawn,
- replaced by a revised edition, or
- amended.

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